

## **REMARKS**

Claims 1-5, 7-11, 13-15, 17-25, 27-29 and 31 are pending in the application and stand rejected. Claims 6, 12, 16, 26 and 30 were previously canceled and claim 31 has been amended herein. No new matter has been added. Support for the foregoing amendments can be found throughout the specification, drawings, and claims as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## **CLAIM AMENDMENTS**

Applicants have amended claim 31 to correct a minor typographical error.

## **SPECIFICATION**

The specification has been objected to as failing to provide proper antecedent basis for the claimed subject matter. Applicants have amended the specification, as indicated above, to specifically include the claim limitation to which the Examiner objects as only being present in the originally filed claims. Therefore, withdrawal of this objection is respectfully requested.

## **REJECTION UNDER 35 U.S.C. § 112**

Claims 23-25 and 27-29 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. By this amendment, Applicants have amended the specification to make clear that the computer executable instructions for instructing a processor may be encoded on a computer-readable medium. Applicants

respectfully submit that this disclosure is enabling to one skilled in the art. Therefore, withdrawal of this rejection is respectfully requested.

**DOUBLE PATENTING**

Claims 1, 5, 7-11, 17, 21-25 and 31 provisionally stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 7-9 and 16 of copending Application No. 10/671,203 in view of Martin et al. (US Pat. No. 7,301,898) ("Martin") in further view of Bloch et al. (US Pat. No. 6,922,408) ("Bloch").

Claims 2-4, 13-15, 18-20 and 27-29 provisionally stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/671,203 in view of Martin in further view of Bloch and in further view of Takase et al. (U.S. Pat. No. 7,023,799) ("Takase").

These rejections are respectfully traversed. As discussed more fully below, the Martin, Bloch and Takase references fail to teach or suggest numerous limitations of the claims. The Examiner acknowledges that copending Application No. 10/671,203 fails to teach these same limitations. Therefore, the combination of the Martin, Bloch and Takase references with the claims of copending Application No. 10/671,203 also fails to teach or suggest these limitations.

Furthermore, Applicants note that the rejection is provisional and elect to defer any further response to the rejection until the copending Application No. 10/671,203 has been patented.

### **REJECTION UNDER 35 U.S.C. § 101**

Claims 23-25 and 27-29 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. This rejection is respectfully traversed.

Applicants respectfully submit that these claims are tied to a particular machine or apparatus and, therefore, are directed to statutory subject matter based on the holding of *In re Bilski*, \_\_ F.3d \_\_, 88 U.S.P.Q.2d 1385 (2008). The above referenced claims are directed to a "computer-readable medium encoded with computer executable instructions for instructing a processor to perform a method of early buffer return" (See claim 23 (emphasis added)). The "processor" of the claims is a particular machine or apparatus. Therefore, withdrawal of this rejection is respectfully requested.

### **REJECTION UNDER 35 U.S.C. § 103**

Claims 1, 5, 7-11, 17, 21-25 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Bloch. This rejection is respectfully traversed.

Applicants respectfully submit that the combination of Martin and Bloch fails to teach the limitations of "placing the plurality of receiver buffers into the free buffer pool as the packet is transmitting out of the plurality of receiver buffers" as provided for by independent claim 1, "placing the plurality of receiver buffers into a free buffer pool when the packet begins transmitting out of the plurality of receiver buffers" as provided for by independent claims 9 and 23, and "wherein the link receiver flow control algorithm places the plurality of receiver buffers into the free buffer pool as the packet is transmitting out of the plurality of receiver buffers" as provided for by independent claim

17. The Examiner acknowledges in the Office Action that the Martin reference fails to teach these limitations, and relies solely upon the Bloch reference (See, e.g., Office Action at page 35). This reliance is misplaced.

Applicants respectfully submit that the Bloch reference, at best, teaches a method for reallocating credits after a data packet has passed out of a buffer (See Bloch at column 8, lines 13-23). The claims provide for placing buffers into a free buffer pool - as the packet is transmitting or when the packet begins transmitting out of the plurality of receiver buffers (See Listing of the Claims above). The placing of the buffers into the free buffer pool as the packet is transmitting or when the packet begins transmitting out of the plurality of receiver buffers has the effect of giving the link transmitter "advanced notice" of the empty portion of the receiver buffers (See Application, e.g., at page 5, lines 19-26). The Bloch reference explicitly teaches allocating data credits only after the packet has been completely transferred out of the buffer. For this reason, Applicant respectfully submits that the Bloch reference fails to teach the above limitations.

Applicants therefore respectfully submit that independent claims 1, 9, 17 and 23 are patentable over the cited references. As claims 5, 7-8, 10-11, 21-22, 24-25 and 31 ultimately depend upon and include the limitations of one of the independent claims, Applicants submit that these claims are also patentable over the cited references for the same reasons. Applicants request that the rejections under Section 103(a) be withdrawn.

Claims 2-4, 13-15, 18-20 and 27-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin in view of Bloch and in further view of Takase. This rejection is respectfully traversed.

Similar to the claims discussed above, independent claims 13 and 27 include the limitation of "placing the plurality of receiver buffers in a free buffer pool after a portion of the packet has been transmitted out of the plurality of receiver buffers, wherein the portion of the packet is proportional to a ratio of an egress link speed to an ingress link speed." As discussed above, the Bloch reference, upon which the Examiner relies for this limitation, teaches a method for reallocating credits after a data packet has passed out of a buffer (See Bloch at column 8, lines 13-23). The claims provide for placing the plurality of receiver buffers in a free buffer pool after a portion of the packet has been transmitted out of the plurality of receiver buffers. In other words, the claims provide that the free buffer pool is repopulated during transmission, and not only after the end of the transmission as taught by Bloch.

Furthermore, Applicants respectfully submit that the Takase reference fails to teach "wherein the portion of the packet is proportional to a ratio of an egress link speed to an ingress link speed," as asserted by the Examiner. The Examiner acknowledges that Martin and Bloch fail to disclose this limitation (See Office Action at pages 45-47).

Takase relates to a leaky bucket system in which an input to leaky bucket is prohibited when the volume of the bucket exceeds a certain threshold (See Takase at column 8, lines 1-14). Takase further provides that a level increase amount added to the leaky bucket may be increased if the volume is below a second threshold (See Takase at column 8, lines 47-55). There is no discussion anywhere in Takase relating

to a "ratio of an egress link speed to an ingress link speed" as provided for by the claims. The claims provide for a system and method that utilizes this ratio to place receiver buffers in a free buffer pool. Takase merely adjusts the amount of data to be placed in a leaky bucket based on the volume within the leaky bucket.

Applicants therefore respectfully submit that independent claims 13 and 27 are patentable over the cited references, as discussed above. As claims 14-15, 18-20 and 28-29 ultimately depend upon and include the limitations of one of these independent claims, Applicants submit that these claims are also patentable over the cited references for the same reasons.

With respect to claims 2-4, Applicants respectfully submit that independent claim 1 is patentable over the cited references. As claims 2-4 ultimately depend upon and include the limitations of independent claim 1, Applicants submit that these claims are also patentable over the cited references for the same reasons.

Furthermore, Applicants submit that claims 2-4 are also allowable because the Takase reference fails to teach "if the egress link speed is less than the ingress link speed, placing the plurality of receiver buffers in the free buffer pool after a portion of the packet has been transmitted out of the plurality of receiver buffers, and wherein the portion of the packet is proportional to a ratio of the egress link speed to the ingress link speed" and "if the egress link speed is one of greater than and equal to the ingress link speed, placing the plurality of receiver buffers into the free buffer pool when the packet begins transmitting out of the plurality of receiver buffers."

As discussed above, there is no discussion anywhere in Takase relating to a "ratio of an egress link speed to an ingress link speed" as provided for by the claims.

Additionally, Takase fails to disclose "placing the plurality of receiver buffers in the free buffer pool" in any form, let alone one in which the placement is dependent on the ratio discussed above.

Applicants request that the rejections under Section 103(a) be withdrawn.

**CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: /Joseph M. Lafata/

Joseph M. Lafata, Reg. No. 37,166  
Michael A. Schaldenbrand, Reg. No. 47,923

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600

JML/MAS/gmp